1 Attorney Docket No. 80095

3 INSTRUMENTED FIBER OPTIC TOW CABLE

ABSTRACT OF THE DISCLOSURE

An integrated fiber-optic tow cable is described having both optical fibers and armor wires located outside the cable core to avoid high strain on the optical fibers when the cables is under stress during deployment. The optical fibers have integral temperature sensors near the outermost portion in order to measure accurately the temperature of the fluid coming in contact with temperature sensors. A beam of light is shown on the optical fibers which is reflected by the optical fibers and reaches the receiver and processed by the processor which may also include a display unit.